

- Fig. 7. *Cyathoseris magnifica*: a, corallum, two-thirds the natural size;  
b, calice, magnified 2 diameters.
- Fig. 8. *Mycedium costatum*: a, part of calicular surface, natural size;  
b, calice, magnified 3 diameters.

XXXI.—On some new Genera and Species of Mollusca from the Seas of China and Japan. By ARTHUR ADAMS, F.L.S. &c.

ALREADY in the 'Annals' I have made known some conchiferous Mollusks which I believe to be peculiar types of form with which we have hitherto not been acquainted. Such, I conceive, is *Sarepta* among Nuculidæ, and *Cyrilla*, the affinities of which seem to be with *Limopsis*. In this communication I have briefly characterized two other forms which I am unable to refer to any genera already established,—one of which appears to be allied to *Bucardia*, and the other to *Montacuta*. The new species described below are also of great interest on account of their beauty or singularity of construction.

Genus CALLOCARDIA, A. Adams.

Testa cordata, tenuis, lævis, inflata; umbonibus parvis, subspiralibus, approximatis. Cardo (in valva sinistra) dentibus duobus inæqualibus, cum foveola angusta arcuata interposita, munitus; dente antico valde prominente, in medio angulatim flexo cum fossula antica et postica instructo, margine quadricuspidato; dente postico obliquo, arcuato, angusto, elongato, margine denticulis duobus vix elevatis instructo; dentibus lateralibus nullis. Pallii linea simplex; impressiones musculares semilunares.

This genus is proposed for the reception of a beautiful shell, of which, unfortunately, I possess but a single valve, which in general appearance most nearly resembles a *Bucardia*. The surface of the valve is simple, as in *B. cor*, but it is not covered with an epidermis. The complicated nature of what I have termed the anterior cardinal tooth, which is furnished with four prominent cusps, and is angularly bent on itself in the middle, with a triangular pit on each side, together with the absence of lateral teeth, will distinguish *Callocardia* from the *Isocardia* of Lamarck. The genus *Anisocardia* of M. Munier-Chalmas, founded on a fossil shell from the Kimmeridge Clay of Havre, appears to bear some resemblance to my proposed genus; but in that form the surface of the valves is radiately grooved, the anterior muscular scar projects as in *Cucullæa*, and the disposition of the hinge-teeth seems to be very different.

*Callocardia guttata*, A. Ad.

C. testa cordata, inflata, lævi, nitida, alba, maculis irregularibus aurantiacis conspersis pulcherrime guttata, superficie lineis incre-

menti concentricis ad marginibus validioribus instructa, latere postico vix flexuoso; lunula linea impressa circumcincta.  
Alt. 8 lin., lat. 9 lin.

*Hab.* Off Quelpaart, 48 fathoms.

The valve from which the above description is taken is fresh and in fine condition. It is white, spotted irregularly with pale orange, and the surface is smooth and shining.

#### Genus IACRA, H. & A. Adams.

Shell ovate, thin, pellucid, closed at both sides; valves with the surface divaricately sculptured. Hinge with an oblique spoon-shaped cartilage-pit and a small anterior primary tooth in each valve. Lateral teeth two, stronger in right valve.

#### *Iacra Japonica*, A. Ad.

*I.* testa ovata, inæquilaterali, tenui, pellucida, nitida, convexa, latere antico latiore rotundato, postico angustiore et subproducto; valvis utrinque concentricè striatis, medio sulcis radiantibus obliquis ornatis, margine ventrali arcuato, integro; sinu palliali magno, lato, profundo.

*Hab.* Kino-O-Sima.

Smaller, more vitreous and pellucid, and with coarser sculpture, than *I. Seychellarum*, A. Ad.

#### Genus THECODONTA, A. Adams.

Testa oblonga, æquivalvis, valde inæquilateralis, concentricè sulcata, latere antico breviorè, postico longiorè. Cardo (in valva sinistra) dentibus duobus divaricatis, cum dente thecæformi prominente interposito, munitus; dente antico crasso, arcuato, antice tuberculiformi; dente postico lamelliformi, tenui; dente laterali antico nullo, postico conspicuo elongato. Pallii linea simplex, valde impressa et radiatim sulcata; cicatricula musculari antica triangulari profunda, postica elongato-ovata.

In form and general character this genus seems to approach the fossil genus *Goodalliopsis* lately proposed by MM. Raincourt and Munier-Chalmas for a shell from the "Calcaire grossier" of Fercourt. In that genus, however, there is simply a triangular space between the cardinal teeth, and the teeth themselves are nearly similar; while in *Thecodonta* there is a cup-like fold projecting into the cavity of the shell, and the primary teeth are very dissimilar, the anterior being of a semilunar form, with a tubercular head at the theciform process, and the posterior being lamelliform and nearly parallel with the hinge-margin. There is only one lateral tooth, which is situated posteriorly. I have drawn up my description from left valves only, so that further information is required concerning the genus, especially

with regard to the position of the cartilage. I believe the place of the genus to be in *Lasæidæ*.

*Thecodonta Sieboldi*, A. Ad.

*T.* testa oblonga, obliqua, valde inæquilaterali, convexiuscula, subincrassata, alba, concentrice sulcata, sulcis subdistantibus; umbonibus parvis, latere antico brevior rotundato, postico longiore rotundato; margine ventrali simplici.

Alt.  $1\frac{1}{2}$  lin., lat.  $2\frac{1}{2}$  lin.

*Hab.* Gotto Islands; 71 fathoms.

Two left valves only were obtained, one of them in very good condition. The pallial line is thickened and impressed with radiating grooves, and the anterior muscular scar is very strongly marked.

*Bucardia (Meiocardia) Cumingi*, A. Ad.

*B.* testa transversa cordata, obliqua, cereo-alba, immaculata, concentrice plicata, plicis validis, regularibus, æqualibus, angulatis, super carinam terminantibus; latere antico brevissimo; umbonibus parvis; latere postico subacuminato, elongato, carinato; area postica tenuiter striata.

*Hab.* China Seas.

In form this species very much resembles *Isocardia Lamarckii*, Reeve; but the whorls are of a pure waxy white, the concentric plicæ are more conspicuous and angular, and the beaks are smaller, closer together, and not quite so much intorted.

*Eucharis Recluzi*, A. Ad.

*E.* testa subquadrato-elliptica, subcompressa, alba; umbonibus parvis, antrorsum vix inflexis; valvis hispidis, concentrice striato-rugosis, ab apice ad marginem posticum vix angulatis; latere postico dilatato, rotundato.

Lat.  $6\frac{1}{2}$  lin., alt. 4 lin.

*Hab.* Yobuko.

A compressed species, subquadrately ovate, with the beaks small and somewhat angulate, and with the posterior side dilated and rounded.

*Eucharis Gouldi*, A. Ad.

*E.* testa trigonali-elliptica, convexa, alba; umbonibus antrorsum valde inflexis; valvis hispidis, concentrice rugoso-striatis, ab apice ad marginem posticum rotundatis; latere postico declivo, subangulato.

Lat.  $5\frac{1}{2}$  lin., alt.  $3\frac{1}{2}$  lin.

*Hab.* Inland Sea, Mososeki.

A somewhat trigonal species, with the beaks strongly inflexed, and the posterior area of the whorls rounded.

*Eucharis Stimpsoni*, A. Ad.

*E.* testa subquadrato-elliptica, compressa, alba; umbonibus parvis, acutis, antrorsum subinflexis; valvis hispidis, concentricè rugoso-striatis, ab apice ad marginem posticum valde angulatis; latere postico elongato, rotundato.

Lat. 6 lin., alt. 4 lin.

*Hab.* Inland Sea, Akasi.

A transversely ovate species, with the beaks sharp and inflexed, and with the posterior area of the whorls strongly and acutely angulate.

*Leptoconchus rostratus*, A. Ad.

*L.* testa ovato-pyriformi, tenui; spira obtusa, alba, longitudinaliter lamellosa; lamellis confertis, undulosis; apertura ovato-trigonalis, antice in rostrum acutum desinente; labio lævi; labro antice margine sinuato; anfractu ultimo liris transversis instructo.

*Hab.* Kino-O-Sima; in Madrepores.

This species differs from *L. serratus*, Rüpp., in the lamellæ not being serrulate; and from *L. ellipticus*, Sow., in the fore part of the last whorl being produced into an acute beak, and in its pyriform shape.

*Opalia exquisita*, A. Ad.

*O.* testa pyramidali, imperforata, acuminata; anfractibus 8, planatis, suturis canaliculatis; varicibus permultis, crassis, oblique punctato-striatis, ad angulum anfractuum aculeato-angulatis, interstitiis transversim liris; basi carina cincta; apertura circulari, varice antice subangulato, postice acuminato.

*Hab.* Gotto Islands; 71 fathoms.

The only species at all resembling this is *Scalaria porrecta*, Hinds, from the Straits of Malacca. In the species described above, the varices are produced into sharp points at the sutures in a very elegant manner, and are obliquely striato-punctate, with the spaces between them conspicuously lirate. It belongs to the group with a basal ridge, and which has received the name of *Opalia*.

*Smaragdinella Sieboldi*, A. Ad.

*S.* testa ovato-oblonga, vix involuta, aperta, tenui, glauca, pellucida, dorso longitudinaliter striata; labio lamella spirali vix dilatata instructo.

*Hab.* Takano-Sima; between tide-marks.

This species differs remarkably from the other species of the genus in the breadth of the spiral lamella which winds round the inner lip. In *S. viridis*, *S. glauca*, and *S. minor* the lamella is so broad that it forms, when it winds, a cup-shaped appendage. In *S. Sieboldi*, however, the lamella is so narrow that a spiral ridge only is visible.